

## IN THE SPECIFICATION

Please replace the paragraph beginning at page 5, line 6 (as numbered), with:

The present invention will now be described in greater detail with reference to the following Example where tests were conducted on Rats, which as a person skilled in the art will appreciate is an excellent animal model for human in the area of technology covered by this invention. The present invention will also be described with reference to the accompanying drawings wherein:

Fig 1 illustrates one-dimensional SDS-PAGE GEL of serum protein profile of one rat before REM sleep deprivation, after 4th, 7th and 9th day REM sleep deprivation and after recovery (REC).

Fig. 2 shows the SDS GEL of serum protein profile of one rat after 4 and 7 days REM sleep deprivation and of another rat after 4 and 7 days on large platform control (LPC).

Fig. 3 shows the mean color intensity of the ~ 200 KDa protein band in the SDS-GEL from 9 rats before and after REM sleep deprivation and after recovery of REM sleep deprivation.

Figs. 4A, 4B, 4C and 4D ~~illustrates~~ illustrate the two-dimensional SDS-PAGE protein profile of serum samples obtained at different times from one rat before REM sleep deprivation, after 4 and 7 days of REM sleep deprivation and after recovery from the effect of REM sleep deprivation.

Figs. 5A, 5B and 5C ~~illustrates~~ illustrate the two-dimensional SDS PAGE protein profile of serum samples obtained at the start and after maintaining the rats on large platform (LPC) which provided them with adequate opportunity to sleep including REM sleep.

Figs. 6A and 6B ~~illustrates~~ illustrate the two-dimensional SDS PAGE protein profile of serum samples of one rat obtained before (SC-0 Hr) and after ~~a rat~~ the rat was put for vigorous swimming (made to swim for 6 Hr (SC-6 Hr) as control).

Fig. 7 shows that since the protein was bound to Concanavalin A (Con A) during fractionation, it is a glycosylated protein.

Fig. 8: ~~This figure~~ 8 shows the purified protein.

Fig 9 shows the sequence of the isolated protein identified as Seq ID # 1.

Fig. 10 shows Western Blot in two-dimensional GEL that the ~200 KDa protein was reduced in the serum if the rats were injected with CFA (complete Freund's adjuvant), that is known to cause acute phase response.

Fig. ~~11~~ 11 ~~shows the same~~ shows the same as Fig 10, but the protein profile was after injecting the rats with turpentine oil (single dose 0.5 ml subcutaneous) that is known to induce acute phase response.

Fig. 12 shows the same as Fig 11 except that the rats were injected with interleukin 6 (IL6).

Please replace the paragraph beginning on page 12, line 13 with the following:

The two-dimensional SDS-PAGE protein profile of serum samples obtained at different times from one rat before REM sleep deprivation, after 4 and 7 days of REM sleep deprivation and after recovery from the effect of REM sleep deprivation are illustrated in Figs. 4A, 4B, 4C and 4D. Comparison of the protein band intensity on different days revealed that band intensity of the ~200 KDa protein with pI between 4.5 to 5.0, was decreased after 4 days of deprivation (REMSD-4D) (Fig. 4B) as compared to its concentration in the pre-REM

sleep deprivation sample (REMSD-0D) (Fig. 4A). The ~200 KDa band intensity was further decreased after 7 days of REM sleep deprivation (REMSD- 7D) (Fig. 4C). However, after 4 days of recovery from REM sleep deprivation (REMSD-4R) (~~Fig. 4R~~) (Fig. 4D), the band intensity of the protein increased significantly and tended to approach the pre-REM sleep deprivation level (REMSD-0D).

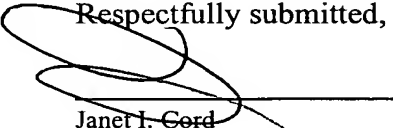
Please replace the paragraph beginning on page 12, line 23 with the following:  
Figs. 5A, 5B and 5C illustrates the two-dimensional SDS PAGE protein profile of serum samples obtained at the start and after maintaining the rats on large platform (LPC). Comparison of the intensity of the protein band on different days revealed that band intensity of the ~200KDa protein with pI between 4.5 to 5.0 was not affected in serum samples obtained from LPC rats.

Please replace the paragraph beginning at page 13, line 3, with:  
The two-dimensional SDS PAGE protein profile of serum samples obtained before (SC-0 Hr) and after a rat was made to swim for 6 Hr (SC-6 Hr) as control is illustrated in ~~Fig 6..~~ Comparison Figs. 6A and 6B. Comparison of the ~200 KDa band intensity in SC-6 Hr sample with its own level in SC-0 Hr, revealed that unlike the REM sleep deprived rat, the protein level remained unchanged after swimming. This ruled out any possible effect of heightened muscle activity that is associated with REM sleep deprivation in flowerpot method as a cause of reduction of serum ~200 KDa protein level after REM sleep deprivation. This further proved that reduction of the ~200 KDa protein level in rat serum is likely to be a function of REM sleep loss in the rat.

IN THE DRAWING

Replacement Sheet of Fig. 6 is attached to delete the top legend that is now incorporated into the specification and separately label the Fig. as Figs. 6a and 6B.

Respectfully submitted,



Janet I. Cord  
c/o Ladas & Parry LLP  
26 West 61<sup>st</sup> Street  
New York, New York 10023  
Reg. No. 33778  
Tel. No. (212) 708-1935